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KS
12/29/00

SEQUENCE LISTING

<110> MIYAGAWA, SHUJI
OKABE, MASARU



RECEIVED

DEC 11 2000

TECH CENTER 1600/2900

<120> MODIFIED CRE RECOMBINASE GENE FOR MAMMALS

<130> 197330US0

<140> 09/662,128

<141> 2000-09-14

<150> JP11-264364

<151> 1999-09-17

<160> 6

<170> PatentIn version 3.0

<210> 1

<211> 1050

<212> DNA

<213> Artificial/Unknown

<220>

<221> CDS

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<220>

<221> misc_feature

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<223> Description of Artificial Sequence: gene

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atg ccc aag aag aag agg aag gtg agc aac ctg ctg acc gtg cac cag	48
Met Pro Lys Lys Lys Arg Lys Val Ser Asn Leu Leu Thr Val His Gln	
1 5 10 15	
aac ctg ccc gcc ctg ccc gtg gac gcc acc agc gac gag gtg cgc aag	96
Asn Leu Pro Ala Leu Pro Val Asp Ala Thr Ser Asp Glu Val Arg Lys	
20 25 30	
aac ctg atg gac atg ttc cgc gac cgc cag gcc ttc agc gag cac acc	144
Asn Leu Met Asp Met Phe Arg Asp Arg Gln Ala Phe Ser Glu His Thr	
35 40 45	
tgg aag atg ctg ctg agc gtg tgc cgc agc tgg gcc gcc tgg tgc aag	192
Trp Lys Met Leu Leu Ser Val Cys Arg Ser Trp Ala Ala Trp Cys Lys	
50 55 60	
ctg aac aac cgc aag tgg ttc ccc gcc gag ccc gag gac gtg cgc gac	240
Leu Asn Asn Arg Lys Trp Phe Pro Ala Glu Pro Glu Asp Val Arg Asp	
65 70 75 80	
tac ctg ctg tac ctg cag gcc cgc ggc ctg gcc gtg aag acc atc cag	288
Tyr Leu Leu Tyr Leu Gln Ala Arg Gly Leu Ala Val Lys Thr Ile Gln	
85 90 95	
cag cac ctg ggc cag ctg aac atg ctg cac cgc cgc agc ggc ctg ccc	336
Gln His Leu Gly Gln Leu Asn Met Leu His Arg Arg Ser Gly Leu Pro	
100 105 110	
cgc ccc agc gac agc aac gcc gtg agc ctg gtg atg cgc cgc atc cgc	384
Arg Pro Ser Asp Ser Asn Ala Val Ser Leu Val Met Arg Arg Ile Arg	

115					120					125						
aag	gag	aac	gtg	gac	gcc	ggc	gag	cgc	gcc	aag	cag	gcc	ctg	gcc	ttc	432
Lys	Glu	Asn	Val	Asp	Ala	Gly	Glu	Arg	Ala	Lys	Gln	Ala	Leu	Ala	Phe	
	130					135					140					
gag	cgc	acc	gac	ttc	gac	cag	gtg	cgc	agc	ctg	atg	gag	aac	agc	gac	480
Glu	Arg	Thr	Asp	Phe	Asp	Gln	Val	Arg	Ser	Leu	Met	Glu	Asn	Ser	Asp	
145					150					155					160	
cgc	tgc	cag	gac	atc	cgc	aac	ctg	gcc	ttc	ctg	ggc	atc	gcc	tac	aac	528
Arg	Cys	Gln	Asp	Ile	Arg	Asn	Leu	Ala	Phe	Leu	Gly	Ile	Ala	Tyr	Asn	
				165					170					175		
acc	ctg	ctg	cgc	atc	gcc	gag	atc	gcc	cgc	atc	cgc	gtg	aag	gac	atc	576
Thr	Leu	Leu	Arg	Ile	Ala	Glu	Ile	Ala	Arg	Ile	Arg	Val	Lys	Asp	Ile	
			180					185					190			
agc	cgc	acc	gac	ggc	ggc	cgc	atg	ctg	atc	cac	atc	ggc	cgc	acc	aag	624
Ser	Arg	Thr	Asp	Gly	Gly	Arg	Met	Leu	Ile	His	Ile	Gly	Arg	Thr	Lys	
		195					200					205				
acc	ctg	gtg	agc	acc	gcc	ggc	gtg	gag	aag	gcc	ctg	agc	ctg	ggc	gtg	672
Thr	Leu	Val	Ser	Thr	Ala	Gly	Val	Glu	Lys	Ala	Leu	Ser	Leu	Gly	Val	
	210					215					220					
acc	aag	ctg	gtg	gag	cgc	tgg	atc	agc	gtg	agc	ggc	gtg	gcc	gac	gac	720
Thr	Lys	Leu	Val	Glu	Arg	Trp	Ile	Ser	Val	Ser	Gly	Val	Ala	Asp	Asp	
225					230					235					240	
ccc	aac	aac	tac	ctg	ttc	tgc	cgc	gtg	cgc	aag	aac	ggc	gtg	gcc	gcc	768
Pro	Asn	Asn	Tyr	Leu	Phe	Cys	Arg	Val	Arg	Lys	Asn	Gly	Val	Ala	Ala	
				245					250					255		
ccc	agc	gcc	acc	agc	cag	ctg	agc	acc	cgg	gcc	ctg	gag	ggc	atc	ttc	816
Pro	Ser	Ala	Thr	Ser	Gln	Leu	Ser	Thr	Arg	Ala	Leu	Glu	Gly	Ile	Phe	
			260					265					270			
gag	gcc	acc	cac	cgc	ctg	atc	tac	ggc	gcc	aag	gac	gac	agc	ggc	cag	864
Glu	Ala	Thr	His	Arg	Leu	Ile	Tyr	Gly	Ala	Lys	Asp	Asp	Ser	Gly	Gln	
		275					280					285				
cgc	tac	ctg	gcc	tgg	agc	ggc	cac	agc	gcc	cgc	gtg	ggc	gcc	gcc	cgc	912
Arg	Tyr	Leu	Ala	Trp	Ser	Gly	His	Ser	Ala	Arg	Val	Gly	Ala	Ala	Arg	
	290					295					300					
gac	atg	gcc	cgc	gcc	ggc	gtg	agc	atc	ccc	gag	atc	atg	cag	gcc	ggc	960
Asp	Met	Ala	Arg	Ala	Gly	Val	Ser	Ile	Pro	Glu	Ile	Met	Gln	Ala	Gly	
305					310					315					320	

ggc tgg acc aac gtg aac atc gtg atg aac tac atc cgc aac ctg gac 1008
 Gly Trp Thr Asn Val Asn Ile Val Met Asn Tyr Ile Arg Asn Leu Asp
 325 330 335

agc gag acc ggc gcc atg gtg cgc ctg ctg gag gac ggc gac 1050
 Ser Glu Thr Gly Ala Met Val Arg Leu Leu Glu Asp Gly Asp
 340 345 350

<210> 2

<211> 350

<212> PRT

<213> Artificial/Unknown

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<223> Description of Artificial Sequence: gene

<400> 2

Met Pro Lys Lys Lys Arg Lys Val Ser Asn Leu Leu Thr Val His Gln
 1 5 10 15

Asn Leu Pro Ala Leu Pro Val Asp Ala Thr Ser Asp Glu Val Arg Lys
 20 25 30

Asn Leu Met Asp Met Phe Arg Asp Arg Gln Ala Phe Ser Glu His Thr
 35 40 45

Trp Lys Met Leu Leu Ser Val Cys Arg Ser Trp Ala Ala Trp Cys Lys
 50 55 60

Leu Asn Asn Arg Lys Trp Phe Pro Ala Glu Pro Glu Asp Val Arg Asp
 65 70 75 80

Tyr Leu Leu Tyr Leu Gln Ala Arg Gly Leu Ala Val Lys Thr Ile Gln
85 90 95

Gln His Leu Gly Gln Leu Asn Met Leu His Arg Arg Ser Gly Leu Pro
100 105 110

Arg Pro Ser Asp Ser Asn Ala Val Ser Leu Val Met Arg Arg Ile Arg
115 120 125

Lys Glu Asn Val Asp Ala Gly Glu Arg Ala Lys Gln Ala Leu Ala Phe
130 135 140

Glu Arg Thr Asp Phe Asp Gln Val Arg Ser Leu Met Glu Asn Ser Asp
145 150 155 160

Arg Cys Gln Asp Ile Arg Asn Leu Ala Phe Leu Gly Ile Ala Tyr Asn
165 170 175

Thr Leu Leu Arg Ile Ala Glu Ile Ala Arg Ile Arg Val Lys Asp Ile
180 185 190

Ser Arg Thr Asp Gly Gly Arg Met Leu Ile His Ile Gly Arg Thr Lys
195 200 205

Thr Leu Val Ser Thr Ala Gly Val Glu Lys Ala Leu Ser Leu Gly Val
210 215 220

Thr Lys Leu Val Glu Arg Trp Ile Ser Val Ser Gly Val Ala Asp Asp
225 230 235 240

Pro Asn Asn Tyr Leu Phe Cys Arg Val Arg Lys Asn Gly Val Ala Ala
245 250 255

Pro Ser Ala Thr Ser Gln Leu Ser Thr Arg Ala Leu Glu Gly Ile Phe
260 265 270

Glu Ala Thr His Arg Leu Ile Tyr Gly Ala Lys Asp Asp Ser Gly Gln
275 280 285

Arg Tyr Leu Ala Trp Ser Gly His Ser Ala Arg Val Gly Ala Ala Arg
290 295 300

Asp Met Ala Arg Ala Gly Val Ser Ile Pro Glu Ile Met Gln Ala Gly
305 310 315 320

Gly Trp Thr Asn Val Asn Ile Val Met Asn Tyr Ile Arg Asn Leu Asp
325 330 335

Ser Glu Thr Gly Ala Met Val Arg Leu Leu Glu Asp Gly Asp
340 345 350

<210> 3

<211> 34

<212> DNA

<213> Artificial/Unknown

<220>

<221> misc_feature

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<223> Description of Artificial Sequence: synthetic DNA

<400> 3

ataacttcgt atagcataca ttatacgaag ttat

34

<210> 4

<211> 29

35'
-6'-

<212> DNA

<213> Artificial/Unknown

<220>

<221> misc_feature

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<223> Description of Artificial Sequence: synthetic DNA

<400> 4

ttcgtatagc atagattata cgaagttat

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<210> 5

<211> 29

<212> DNA

<213> Artificial/Unknown

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<223> Description of Artificial Sequence: synthetic DNA

<400> 5

ataacttcgt atagcataca ttatacgaa

29

<210> 6

<211> 21

<212> DNA

<213> Artificial/Unknown

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<223> Description of Artificial Sequence: synthetic DNA

<400> 6

ccaagaaga agaggaaggt g .

21